

STEMpact



Ameren

AT&T

Bank of America

Boeing

Burges Foundation

Burns and McDonnell

Centene

Emerson Charitable Trust

Express Scripts Foundation

Mallinckrodt

Maritz

MasterCard Worldwide

McDonnell Family Fund

Millepore Sigma

Monsanto

Mysun Charitable Fund

Spire (formerly Laclede)

Washington University

STEMpact TEACHER QUALITY INSTITUTE AND YEARLONG FOLLOW UP

Application for Participation

REQUESTED BY MARCH 1, 2019

Cohort enrollment limited to 140.

High needs public school districts are given priority.



District Application for Participation 2019-2020

DETAILS

WHO

Teachers, teacher leaders, instructional coaches, coordinators in grades K-8, who teach/support/integrate science, math, technology, engineering. (Districts are limited to 20 participants in a given year. STEMpact seeks to enroll 75% of the attendees from high needs districts. Final decisions, regarding the applications received, will take this goal into account.)

WHEN

July 8-19, 2019, 8:30 – 4:00, and once a month throughout the 2019-2020 school year.

WHERE

Washington University and various STEM locations throughout the region.

WHAT

The 2019 STEMpact Teacher Quality experience will be a 100-hour, yearlong learning endeavor involving teams of teachers from St. Louis regional school districts (Missouri and Illinois). The STEMpact TQ Institute will meet for two weeks during the summer. During the school year, participants will continue their learning each month with 6 after school sessions spread between September and April and 3 full day sessions in October, January, March (specific dates TBA).

COSTS AND CONTRIBUTIONS

COSTS

- Districts must cover the cost of substitutes for the 3 full day follow up sessions, and any additional stipend pay for teachers that may be required as a result of school/district practices or policies.
- There is no set registration or material fee for the Institute and yearlong follow up. Districts are asked to pay what they can. STEMpact will cover all other expenses. (The yearlong program costs \$3200 per educator which includes stipends and a computer for each participant.)

STIPENDS/CREDIT

- Upon completion of expectations, participants receive \$100/day stipend for the Institute (10 days x \$100 = \$1000) and \$50 each for the six after school sessions (\$300).
- College credit is available for those interested through Washington University and University of Missouri-St. Louis. Credit cost/stipends/tuition reimbursement is administered in whatever way is standard for each teacher/school district.

PARTICIPANT EXPECTATIONS

INSTITUTE EXPECTATIONS

- Participants will: 1) Attend and participate in sessions and field trips, 2) Present two slides, 3) Brainstorm STEM lesson ideas using a STEMitizing Organizer, and 4) Complete requested evaluations.

FOLLOW UP EXPECTATIONS

- Participants will integrate 3 STEM lessons/units during the first three quarters of the 2019-20 school year (one each quarter) using on required district curriculum that has been "stemitized" with STEM TQ strategies.
- Participants will: 1) Attend and participate in sessions and field trips, 2) Share lessons, student outcomes and STEM connections, and 3) Administer pre-STEM capable learner surveys to students (where possible).

END OF YEAR EXPECTATIONS

- Participants will submit a completed: 1) STEM TQ planning outline, and 2) A 4-paragraph reflection, 3) Administer post-STEM capable surveys to students. (Stipends are paid after documents are received.)



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DISTRICT EXPECTATIONS

COMMUNICATION

A District contact person will: 1) Assist in identifying follow up dates and possible session locations, 2) Support participant attendance, 3) Communicate encouragement for the completion of participant expectations, 4) Work with STEMpact TQ if difficulties arise.

DATA

A District contact person will provide annual district achievement data (MAP data file from DESE) for grades 3-8 in mathematics and science. This will be used to compare: 1) STEM TQ to non-STEM TQ classroom performance, 2) Student performance (using student numbers, no names) compared to themselves over time, and 3) Grade level performance over time. The Office of Research and Evaluation in the Ferguson Florissant School District has set up our data base and evaluation tools. (Confidentiality agreements and/or release of information agreements will be signed, if required.)

BENEFITS

Participants will:

1. **Use** new state/national standards in math, science and engineering, and technology.
2. **Develop** high quality formative and summative measures of student learning.
3. **Explore** high quality instructional strategies (**S**trategies **T**hat **E**ngage **M**inds).
4. **Plan** lessons/units that are STEM influenced (stemitized), engaging, rigorous, relevant, integrated.
5. **Support** students to be self-identified STEM capable learners.
6. **Connect** STEM content to everyday, real-world problems, STEM careers, student culture, student interests, and 21st Century Skills.
7. **Visit** STEM work sites illustrating the application of science, technology, engineering and math.
8. **Reflect, share and collaborate** with colleagues around lessons and leadership opportunities.

OUTCOMES

STEMpact TQ participants will:

1. Use school district grade level curriculum to develop 3 implementations for the 2019-20 school year using the STEM TQ Planning Outline document. (For instructional coaches, professional development can also be planned.)
2. Evaluate and reflect on the achievement of students and their identity as STEM capable learners. Evaluate one's own professional learning process and identity as a STEM capable teacher.
3. Receive a computer to access Institute and school year communications and resources, to plan, write, provide feedback and to submit documents and artifacts.
4. Use strategies such as "windows and mirrors", deliver STEM capable affirmations, integrate career and real-world connections, develop a consciousness of inclusion, implement best practices to attain high achievement for ALL, integrate 21st Century Skills.
5. Gain access to resources and ideas from other teachers.



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APPLICATION FORM

STEMpact seeks enrollment from public schools (including charter schools) and school districts representing a range of characteristics found in the St. Louis region: size, student performance, demographics, location. Priority will be given to high needs districts. Districts/schools are asked to apply by completing one application and naming the K-8 teachers, teacher leaders/instructional coaches/coordinators being nominated for enrollment. Districts/schools must also indicate support, on behalf of the nominated educators, who will participate in this professional development endeavor.

A minimum of two participants is requested from any one district. A single district is limited to 20 participants in a cohort year. It is expected that participants nominated will serve in "value added" roles in their school/district. Nominees may be:

- Teachers, particularly those who serve on curriculum committees, school improvement teams, professional development committees, or who serve as committee chairs, grade level/department chairs, mentors, or those who rally others.
- Formal leaders such as an instructional coach, coordinator, administrator.
- Educators who view their position as "value added" and provide school-wide impact, such as librarians, art teachers, physical education teachers, technology specialists, etc.

This application form communicates to STEMpact that there is district interest in and commitment to being part of the STEMpact TQ professional development initiative. Please email this registration to: deborah@stempact.org. Thank you in advance for your application.

District: _____

DISTRICT CONTACT PERSON FOR STEMpact TQ DETAILS AND COMMUNICATION:

Name: _____

Position: _____

Person submitting this application: _____

Superintendent Signature _____ Date _____

DISTRICT SUPPORT AND UNDERSTANDING

1. Is the District able to financially contribute to 2018-19 participant costs?
 Yes, we can contribute \$_____ per person toward program costs (\$1900, includes tablet).
 Yes, we can contribute _____per person toward stipend costs (\$1300 for summer & school year attendance).
 No, we are not able to contribute.



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2. Please initial, to indicate there is an understanding and willingness to support the participant expectations? _____
(initials)

3. Please initial, to indicate there is an understanding and willingness to meet district expectations? _____
(initials)

4. What is your district's Free/Reduced lunch percentage? _____

5. Please share enrollment demographic percentages:

_____ % White _____ % Hispanic _____ % Black/African American
 _____ % Asian _____ % Other _____

6. What is your district's most recently calculated per pupil expenditure? \$ _____

7. What was your districts' average student attendance percentage last year? _____

8. Please share MAP performance level percentages. Math data from (circle one) 2018 or 2017. Science data from 2017.

Performance Levels	3 rd Math	4 th Math	5 th Math	6 th Math	7 th Math	8 th Math	5 th Science	8 th Science
Advanced								
Proficient								
Basic								
Below Basic								

9. Please summarize a few specific performance strengths and weaknesses, given MAP data:

Assessment	Performance Strengths	Performance Weaknesses
MAP mathematics		
MAP science		

10. What K-8 STEM classroom initiatives are present in your school/district that would be helpful for us to know?

- a. STEM K-8 curriculum resources and instructional integration?

- b. STEM student opportunities?

- c. Messages about STEM Capable Learning to students and teachers?

- d. STEM professional development?



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11. If you have had past TQ participation, what has been the impact of those involved?

12. What is your primary objective for submitting this application to STEM TQ?

13. How will you support the nominated participants?

14. What are your expectations of the participants nominated?

